

# **ODYON Pro WE10 Receiver 1-Channel Max Range Instruction Manual**

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# **ODYON Pro WE10 Receiver 1-Channel Max Range**



# **Overview**

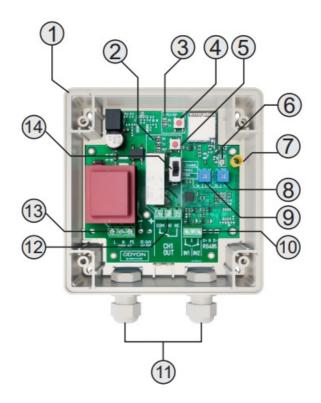
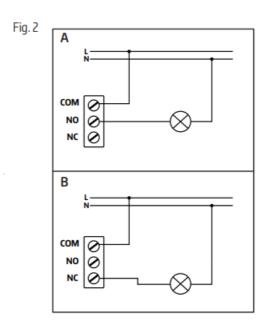


Fig. 1

- 1. Wall receiver
- 2. LEDs channel 1 (red, green, orange)
- 3. LEDs repeater (red, green)
- 4. Repeater button
- 5. Channel 1 button
- 6. External antenna connection
- 7. Internal antenna
- 8. Potentiometer switch-off delay
- 9. Potentiometer switch-on delay
- 10. Connection terminal inputs

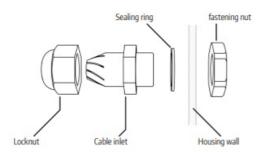
- 11. Cable entry
- 12. Connection terminal output
- 13. Connection terminal supply voltage
- 14. Selector switch for operating modes

#### Circuit



Electrical load (e.g. lamp)

# Cable gland PG9



### Model: ODYON pro WE10/230

Thank you for purchasing this wall-mounted receiver from the ODYON pro series. This wall receiver has been designed for excellent functionality and offers perfect performance and solution possibilities. The essential design guarantees max-imum ergonomic comfort and clear functional operability. The 1-channel ODYON pro wall receiver offers a potential-free switch-over con-tact and can control up to 2 functions of one or more other ODYON pro receivers. Ranges of several hundred metres are achieved, depending on the environment and the constellation of the radio system. An external antenna can also be used to increase the range. The switchover contact offers 3 different operating modes. It can either be switched every time a button is pressed on the remote control or switched ON with a time delay and OFF with a time delay. In addition, it is also possible to teach in two buttons of a remote control in order to be able to switch ON and OFF selectively. This wall receiver can also be used as a repeater for other units of the ODYON pro series to further increase the range. The ODYON pro WE10/230 wall receiver is operated with 230 V mains voltage and may only be installed by a qualified electrician.

A maximum of 16 channels can be taught-in to a wall receiver. Each function key of a hand-held transmitter corresponds to one channel.

### **SCOPE OF DELIVERY**

- ODYON pro WE10/230
- 1x 1-channel wall receiver
- · 2x Cable gland
- 1x Blind plug
- 1x manual

#### **AVAILABLE ACCESSORIES**

- Rod antenna with magnetic base
- Screw antenna
- ODYON hand-held transmitters (1, 2, 4-channel)

#### **GENERAL NOTES ON RADIO OPERATION**

The radio transmission is realised on a non-exclusive transmission path, which is why interference cannot be ruled out. Further interference can be caused by switching operations, electric motors or defective electrical appliances. The range in buildings can deviate greatly from that in the free field. In addition to the trans-mitting power and the receiving characteristics of the receiver, environmental influences such as air humidity play an important role, as do the structural conditions on site. The ODYON pro series is designed for ranges of several hundred metres under optimal conditions. However, the maximum range is only achieved with line-of-sight contact between transmitter and receiver and without high-fre-quency interference.

# Possible causes for reduced range are:

- Buildings of any kind or vegetation affect the range.
- The distance of the antenna to the body, as well as to other conductive surfaces or objects.
- The "background noise" in non-rural areas can already be relatively high, reducing the signal-to-noise ratio and thus the range.
- Similarly, it is not impossible that devices with similar operating frequencies may be operating in the neighbourhood, making the receiver seemingly less sensitive.
- If the receiver is in the vicinity of poorly shielded devices that produce interfering radiation (e.g. PCs), strong losses in range can also occur.

#### **COMMISSIONING AND OPERATION**

The wall-mounted receiver ODYON pro WE10/230 is operated with 230V mains voltage and may only be installed by a qualified electrician.

Communication between hand-held transmitter and wall receiver

If the wall receiver receives a signal from a remote-controlled hand-held transmit-ter, the switching contact is switched according to its setting and the receiver sends a feedback signal to the hand-held transmitter, whose control LED indic-ates this by flashing red/green.

#### Connection of operating voltage

Make sure that all connection lines are voltage-free and connect the connection line to the connection terminal, L to the screw terminal "L", N to the screw terminal "N" and, if present, PE to the screw terminal "PE". Then connect

the unit to be switched.

#### Connecting the unit to be switched

Fig.2 shows two examples of how a device to be switched can be connected to the "Output" connection terminal. This is a potential-free change-over contact, i.e. as long as the relay is not switched (orange LED channel 1 is not lit), the screw terminals COM and NC are connected. If the relay is switched (orange LED chan-nel 1 lights up), COM and NO are connected.

The contact may be loaded with max. 7A at 230VAC.

NC= Normally Closed (contact closed when relay is not switched)

NO= Normally Open (contact open when relay is not switched)

COM = Common contact

#### Input connection

At the "Input" connection terminal you have the option of connecting e.g. 2 push-buttons in order to use the wall receiver like a hand-held transmitter. For this pur-pose, a potential-free contact (e.g. a simple push-button) can be connected to the middle screw terminal and to the screw terminal "IN1". Another push-button can be connected to "IN2", which also uses the middle screw terminal as a second con-tact. If one of the buttons is pressed, the wall receiver sends a radio signal that can be taught-in to another receiver.

The wall receiver can thus also be used to create a stationary 2-channel transmit-ter.

The buttons must not be operated at the same time.

Once everything has been connected and checked, the power supply can be established.

# **Operating Mode Switching Contact / Teaching Hand-held Transmitter**

The switching contact offers 3 different operating modes in order to be able to use it as versatilely as possible.

#### Channel" operating mode

Slide the selector switch for the operating mode to the "2-Channel" position according to the labelling on the circuit board.

Press the button for channel 1 (5), the red and green LEDs of channel 1 now light up. Then press two buttons on the hand-held transmitter in succession, e.g. button 1 and button 2. The red and green LEDs each flash once to confirm and then go out.

Now the switch contact is switched ON when the first key (1 in the example) on the hand-held transmitter is pressed and switched OFF when the second key (2 in the example) on the hand-held transmitter is pressed. The orange LED of channel 1 lights up when the relay is switched ON.

#### Toggle" operating mode

Slide the operating mode selector switch to the "Toggle" position. Press the button for channel 1 (5), the channel 1 LEDs light up red and green, and then press the desired button on the hand-held transmitter. The red and green LEDs flash once for confirmation and then go out. Now the contact switches every time the corresponding button on the hand-held transmitter is pressed. The orange LED of channel 1 lights up when the relay is switched ON.

#### Push" operating mode

Slide the operating mode selector switch to the "Push" position. Press the button for channel 1 (5), the channel 1 LEDs light up red and green, and then press the desired button on the hand-held transmitter. The red and green LEDs flash once for confirmation and then go out. How exactly the contact now behaves when the button on the hand-held trans-mitter is pressed depends on the setting of the two potentiometers (8) and (9). If both potentiometers are turned to position 0, the contact switches ON as long as the button on the hand-held transmitter is pressed and OFF when the button on the hand-held transmitter is released. You can read how the two potentiometers influence this behaviour in the next two sections.

#### Potentiometer switch-off delay (8)

With this potentiometer, the switch-off delay can be set between 0 and 10 seconds. In position 0 the relay switches off without delay. By turning the poten-tiometer clockwise, the time is adjusted continuously up to a maximum of 10 seconds. I.e. 10 seconds after the relay has switched on, it automatically switches OFF again.

# Potentiometer switch-on delay (9)

With this potentiometer, the switch-on delay can be set between 0 and 10 seconds. In position 0, the relay switches on without delay when the correspond-ing button on the hand-held transmitter is pressed. By turning the potentiometer clockwise, the time is adjusted continuously up to a maximum of 10 seconds. I.e. 10 seconds after the corresponding button on the hand-held transmitter is pressed, the relay switches ON.

**NOTE:** If a delay is set and the button on the hand-held transmitter is pressed, the receiver will not respond to the hand-held transmitter button being pressed again until the delay time has elapsed.

**NOTE:** You can switch between the "Toggle" and "Push" operating modes at any time. If the "2-channel" mode is to be or has been set, the wall receiver must be reset as described in the next section. Repeater function This wall receiver can also be used as a repeater. Briefly press the repeater button and then the button on the hand-held transmitter that is to be forwarded.

Position the wall receiver to be used as a repeater so that it has radio contact with the wall receiver to which it is to forward the signal.

As soon as the wall receiver used as a repeater receives a taught-in signal, it waits briefly to see whether the target receiver has already sent an acknowledgement. If this is not the case, the repeater forwards the signal and then also waits for the feedback from the target receiver and then forwards this to the hand-held trans-mitter.

#### Coding

The wall-mounted receiver is coded at the factory for transmission (button on the inputs) with a permanently assigned and unique serial number for identification. For security reasons, this cannot be changed and allows many combinations of the radio system. The serial number is transmitted in encrypted form in the radio protocol and therefore cannot be copied. To train a hand-held transmitter on an ODYON pro receiver, press the channel button (5) on the receiver and then press the desired button on the hand-held transmitter. After the hand-held transmitter has been successfully tuned in, the receiver switches according to the set operating mode. Read the section "Switch-ing operating mode" for more detailed information.

## Reset (delete transmitter)

To reset the wall receiver and delete all taught-in transmitters, press and hold the "Channel 1" button until the red and green LEDs of channel 1 and repeater light up. The LEDs go on one after the other. Then release the button and all 4 LEDs flash 3 times to confirm. The wall receiver is now reset and the transmitters can be relearned.

NOTE: It is not possible to delete only one transmitter.

#### **TECHNICAL DATA**

• Radio frequency: 5 MHz

Transmitting power: < 100mW</li>
Power supply: 230V / 50Hz; 1W
Switching contact: 230V, 7A

• Operating temperature: -20° – + 65°C (storage -40° – + 75°C)

Housing dimensions: 105 mm x 110 mm x 50 mm (Subject to technical changes)

### **MAINTENANCE AND CLEANING**

The product is maintenance-free. Leave any repair work to a specialist. Clean the product with a soft, clean, dry and lint-free cloth. Do not use any cleaning agents containing solvents, as this may damage the plastic housing and any labelling.

#### **DISPOSAL INSTRUCTIONS**

Do not dispose of the wall receiver in household waste! Electronic devices must be disposed of in accordance with the directive on waste electrical and electronic equipment via the local collection points for waste electronic equipment.

#### 2-YEAR LIMITED WARRANTY

This product is warranted to be free from defects in materials and workmanship for a period of 2 years from the date of purchase. This applies only if the appliance is used in the usual manner and is regularly maintained. The obligations of this warranty will be limited to the repair or re-installation of any part of the unit and will only apply on condition that no unauthorised modifications or attempted repairs have been made. Your statutory rights as a customer are in no way affected by this warranty.

**Please note.** There is no entitlement to warranty in the following cases, among others:

No proof of warranty

- · operating errors
- Incorrect coding/channel selection
- Interference from other radio equipment (e.g. mobile phone operation)
- External interference/impacts
- Mechanical damage

#### LIMITATION OF LIABILITY

The manufacturer is not liable for loss or damage of any kind, including incidental or consequential damages, resulting directly or indirectly from the malfunction of this product.

#### SAFETY INSTRUCTIONS

Damage caused by failure to observe these operating instructions will invalidate the warranty. We accept no liability for consequential damage! We accept no liability for damage to property or personal injury caused by improper handling or non-observance of the safety instructions. In such cases, any warranty claim becomes invalid! Do not use this product in hospitals or other medical facilities. Although this system emits only relatively weak radio signals, these could cause malfunctions of life-support systems there. The same may apply in other areas. For safety and approval (CE) reasons, unauthorised modification and/or alteration of the product is not permitted. Do not leave the packaging material lying around carelessly; plastic films/ bags, polystyrene parts, etc., could become dangerous toys for children.

- · These operating instructions are a publication of
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#### **Documents / Resources**



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